# Capable Manpower

## A FUTURE NAVAL CAPABILITY

Sailors and Marines must be fully prepared to fight and win in an information-rich, distributed battlespace. We can give them the edge with affordable human-centered hardware and systems developed out of a thorough knowledge of human capabilities, limitations, and needs. Our objective is to get the right warfighters into the right job, at the right time, with the right tools.

**Why is this Future Naval Capability Important?** We cannot operate twenty-first century forces with an approach to manpower rooted in the nineteenth century. Our operational doctrine expects far more of the individual Sailor and Marine than ever before. We have to compete for talented volunteers and work hard to retain them. Attracting them, training them, retaining them, and enabling them to work up to their potential form one of the Navy's and Marine Corps' greatest challenges. We will meet that challenge only if we provide Sailors and Marines with the best possible quality of service.

**What's our investment strategy?** In developing our core investment program, the Capable Manpower FNC IPT focused on identifying and filling capability gaps, fulfilling commitments to funded acquisition programs, and designing a strategy that would provide the wherewithal to execute the program. Three enabling capabilities will get us there; they are of ***equal priority***:

- ***Enabling Capability.*** We need to recruit and match Sailors and Marines to the right jobs at the right times.
- ***Enabling Capability.*** We need to design affordable systems centered on the warfighter.
- ***Enabling Capability.*** We need to equip Sailors and Marines with effective mission essential competencies.

**How are we filling the gaps in those enabling capabilities?** Each enabling capability will have a set of supporting technologies and transition opportunities.

**Priority: Recruit and match Sailors and Marines to the right jobs at the right time, balancing individual needs with the needs of the Fleet and the Force.**

- ***In FY 2002-2007:*** Whole person assessment. Sailor and Marine Career Management System. Personnel Planning and Policy Analysis.

***Transition Opportunities:***

- Job and Occupational Interest in the Navy—transition to CNRC, FY 02; Skill-Job Matching Algorithm—transition to CNRC, CNET, FY 02.
- Personality (Non-Cognitive) Measures—transition to CNRC, FY 04; Sailor/Marine Assignment Matchmaker—transition to NPC, MCAs, FY 04; Broker Agent—transition to NPC, CNET, FY 04.
- Distribution Incentive System; Personnel Force Threat Detection—transition to N13, FY 05; Artificial Intelligence Data Quality Tools—transition to N13, PERS-3, FY 05; Cross-Functional Policy Analysis System—transition to N13, CNET, PERS-4, FY 05.
- Job Classification Interface—transition to CNRC, FY 06; Attrition Reduction Technologies—transition to CNRC, CNET, FY 06.
- Culture and Values Selection; Whole Person Assessment—transition to CNRC, FY 07; Web-Based Marketplace for Sailors, Marines, and Jobs—transition to PERS-4, FY 07; Career Case Manager Technologies—transition to PERS-4, FY 07; Sailor/Marine Career Management System—transition to NPC, MCAs, FY 07; Personnel Cost/Quality Tradeoff Model—transition to N13, PERS-4, FY 07; Personnel Situation Monitoring, Analysis, and Response Technology—transition to N13, PERS-4, FY 07.

**Priority: Design affordable, warfighter-centered systems, organizations, and jobs by applying knowledge of human capabilities, limitations, and needs.**

- ***In FY 2003-2007:*** Selection and training criteria devel-

oped and validated. Design support systems.

***Transition Opportunities:***

· Human Performance Parameters for Use in Revolutionary Design—transition to PEO(S) DD21, PEO (Carriers), N864, FY 02.

· Knowledge Acquisition Tool and Advanced Cognitive Modeling Capability—transition to PEO (TSC) RDA-CHENG, FY 03.

· Simulation-based Warfighter Test Battery; Future Surface Warfare Skill Set —transition to DD21, CVNX, ATRC, SWOSCOLCOM, FY 04.

· Human-Centered Design Guidelines—transition to PEO (TSC) RDA-CHENG, FY 04, FY 06, FY 07.

· Library of Human Performance Parameters; Knowledge Acquisition Tools—transition to PEO (TSC) RDA-CHENG, FY 05; Surface Warfare Performance Tests and Selection Set; Training and Skills Assessment Tool —transition to DD21, CVNX, ATRC, SWOSCOLCOM, FY 05.

· Library Containing Data Associated with Developing Warfighter-Centered Systems (including History of Design Decisions and Analyses) —transition to PEO (TSC) RDA-CHENG, FY 06, FY 07; Mathematical Performance Multiplier Functions—transition to PEO (TSC) RDA-CHENG, FY 07.

**Priority: Equip Sailors and Marines with effective mission-essential competencies when and where needed, at an affordable cost.**

***In FY 2003-2007:*** Advanced distance and distributed learning. Objective-based on-the-job training, and maintenance support for individuals and teams. Virtual technologies and environments. Visualization-based training and support systems.

***Transition Opportunities:***

· Advanced Distance and Distributed Learning (ADDL)—transition to N1, N7, N84, N85, N869, N879, N889, FY 03; Deployable Sonar Operations Training—transition to COMSUBLANT, COMSUBPAC, N87 Acoustic-Rapid COTS Insertion Program, FY 03; Intelligent Agents to Enhance Learning in Large Scale Modeling and Simulation Exercises—transition to CNET, N7, N869, N879, N889, N931, NAVSEA, NAVAIR, SPAWAR, ATG, FY 03; Virtual Technologies and Environments for Combat Vehicles—transition to CNET, MCCDC, N85, US Army, FY 03.

· Guidelines for Optimizing ADDL Effectiveness Based on Individual Characteristics and Organizational Factors; Authoring Capabilities for Developing Pedagogically Sound ADDL Courseware —Transition to CNET, NAVSEA, NAVAIR, SPAWAR, MCCDC, FY 03-05, FY 07.

· Visualization of Environments' Effects on System Performance—transition to OP-96, METOC Centers, Aircraft Carrier OA Divisions, FY 04; Computer-Aided System for Supporting Fleet Personnel in Generating Measures of Performance for Individual and Team Training On-the-Job; Intelligent Instructional System for Identifying and Managing Objective-Based Mentoring Partnerships —transition to CNET, N7, N869, N879, N889, N931, NAVSEA, NAVAIR, SPAWAR, ATG, FY 04-05.

· Recommendations for Designing Advanced Learner Support Tools for ADDL—Transition to CNET, NAVSEA, NAVAIR, SPAWAR, MCCDC, FY 05; Multi-Media Visualization for Sensor Operations Training; Battlegroup-Level Advanced Undersea Warfare Visualization; Multi-Platform Distributed Network-Centric Training System —transition to CTFs, DESRONs, CVBGs, surface ships, submarines, and aviation squadrons, FY 05-06.

· Integrated Maintenance Training and Performance Support Through Distance Technologies—transition to CNET, N7, N869, N879, N889, N931, NAVSEA, NAVAIR, SPAWAR, ATG, FY 06; CBQ for MOUT, Mission Planning, and Rehearsal Systems—transition to CNET, MCCDC, N85, N88, PEO(EW), US Army, FY 06.

· Full-Spectrum Virtual Environment Integrated Infantry Combat System—transition to CNET, MCCDC, N85, US Army, FY 07; Technologies for Facilitating Non-Face-to-Face Mentoring Interactions, Objective-Based Strategies for Team Training Across Multiple, Distributed Platforms—transition to CNET, N7, N869, N879, N889, N931, NAVSEA, NAVAIR, SPAWAR, ATG, FY 07; Recommendations for Collaborative Learning and Team Training in ADDL—Transition to CNET, NAVSEA, NAVAIR, SPAWAR, MCCDC, FY 07.

*"Nothing is more important to our Navy than recruiting Sailors, retaining Sailors, and attacking attrition of Sailors. The quality of service alignment priorities directly affect our ability to retain the people we need to make our Navy work. I need the involvement of every leader at every level to achieve our goals."*
*—Admiral Vern Clark, Chief of Naval Operations*

**What's some of the relevant discovery and invention science and technology?** Exploitation and delivery depend upon discovery and invention. In ONR's vertically integrated program, we will continue to exploit basic work that proves relevant to capable manpower.

· ***Human performance*** research will continue to advance this FNC.

· ***Operational environments*** must be understood with a view to giving human beings the ability to operate under diverse, challenging conditions.